

Larr Kelly - LOD Referral Comments

Loudoun Water
Comments

From: "Danielson, Todd" <tdanielson@loudounwater.org>
To: Larr Kelly <Larr.Kelly@loudoun.gov>
Date: 5/19/2009 7:34 AM
Subject: LOD Referral Comments
CC: "Hammes, Dale" <dhammes@loudounwater.org>
Attachments: 2009-0515LODReferralCmts.pdf

Larr,

Loudoun Water's comments on the LOD referral are attached. We look forward to speaking with the PC about this on Wednesday June 3, 2009. We appreciate working with you to help craft good legislation for Loudoun County. If you have any questions or comments, please do not hesitate to call.

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May 15, 2009

Mr. Larr Kelley
Zoning Division
Department of Building and Development
County of Loudoun
1 Harrison Street, SE
PO Box 7000
Leesburg, Virginia 20177

Sent via email

Re: Limestone Overlay District Referral Comments

Dear Mr. Kelley,

Thank you for the opportunity for Loudoun Water to provide comments on the regulation for the proposed implementation of a Limestone Overlay District (LOD). The fundamental basis for the LOD is directly in line with Loudoun Water's mission and policies, and we are supportive of the LOD for that reason. We are taking this opportunity to comment on some specific aspects of the proposed regulations and standards that we feel may be modified to better protect public health and the environment in a manner that also protects the economic resources of County residents. Also, it is critically important that Loudoun Water mitigates business risks that threaten the interests of our customers.

In this comment letter, we will first provide our comments regarding the proposed regulation. We will then provide background that serves as the basis for our comments, present risks that we see that need to be addressed in the LOD, and provide additional detail regarding our recommendations that address the risks and adhere to Loudoun Water policies regarding protection of public health through provision of sustainable water and wastewater services.

The comments below were presented to and approved by the Loudoun Water Board on May 14, 2009:

- Loudoun Water has reaffirmed its policy not to own or operate systems serving fewer than 15 residential connections unless the system was to be interconnected with another communal system.
- Loudoun Water should have blanket approval to interconnect communal systems within the LOD once the proposed communal system has met all the requirements for a stand alone communal system.
- Communal systems should not be required for base density (up to 1 house per 10 acre) grid development.



- Loudoun Water supports the LOD requirement for a developer prepared and County and Loudoun Water approved water budget for proposed development to help assure that well supplies are sustainable.
- The County should establish wellhead protection zones to reduce risks associated with the potential for groundwater impacts from surface water pollutants.
- Loudoun Water already requires a backup well for community systems located within the karst because the risk of failure or contamination is higher, and the County should also require this, along with additional water quality testing during hydrogeologic investigations.

Loudoun Water is guided by three policies in relation to these comments. The first policy is *Loudoun Water's Obligation to Protect Drinking Water Resources and Public Health*, which states that we protect public health by developing and implementing effective and efficient systems that provide for the needs of the community while protecting water resources. The second is *Loudoun Water's Position Regarding Operation of Small Water and Wastewater Systems*, which states we will not operate systems serving fewer than 15 residential lots unless there is a known timeframe for expansion or we are addressing a public health issue. The third is our *Policy for Integrated Water Resource Planning*, which states that we ensure protection of public health and welfare by providing services in a professionally responsible and cost-efficient manner that also plans for the future through cost effective and reliable facilities that provide for the needs of the community, protect the environment, and honor the land-use planning decisions of the County. These all have direct relationship to the limestone karst section of Loudoun, the proposed LOD, and our provision of services in this area.

The limestone karst areas of Loudoun County present certain risks associated with the potential for groundwater impacts from domestic, agricultural, and wildlife activities. From a drinking water perspective, this risk can be manifested with wells (public or private) whose quality or productivity is impacted. This could be in the form of pollution (biological or chemical) rapidly entering the groundwater and moving toward wells or in the form of significant water movement or groundwater declines that lead to development or failure of karst features. Our recommendations below are meant to help mitigate this risk.

First, the LOD proposes community water and wastewater systems would be required for all future subdivisions or 8 or more homes. Our understanding of the basis for this is twofold: (1) community systems require much more up front work to help assure minimal impact on or by the local geology, and (2) community systems require on-going testing to assure that they are still operating with minimal impact. We believe that reasoning is sound and appropriate. We also believe that community systems of such a small size do not sufficiently overcome the risk and suffer from "dis-economies" of scale at that size. Therefore, to address both the County's and Loudoun Water's concerns of protecting public health, the environment, and economic resources of County residents; we believe that Loudoun Water should be granted a water and wastewater service area for the entire LOD. This would allow Loudoun Water to best protect public health, the environment, and economic resources by providing water services in a manner that minimizes environmental impact, is of a scale where we can easily mitigate public health risk, and allows us to

respond more holistically to the service area. We could therefore assure that once developers met the requirements for standalone community systems, all clustered subdivisions of 8 or more homes may be served by community systems that protect public health, the environment, and economic resources. We state "clustered" subdivisions because we believe that subdivisions with grid development at low densities (e.g., <1 house per 10 acres) should not be required to be served by community systems.

Second, the County should allow for the establishment of wellhead protection zones that limit the types of land use and activities that can occur near wells. The size of zone can vary, based upon type of well. Very strict protection of recharge around sinks and other karst features are very important in this protection zones.

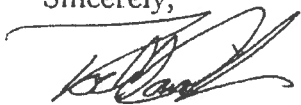
Third, we support the requirement for a water budget for proposed development to help assure that future wells can supply the required demand. This requirement should be broadened to assure that regardless of whether wells can supply it, it must be assured that the proposed demand will not draw down the groundwater table excessively or apply water to the ground at well above agronomic rates. Both of these can lead to development or failure of (additional) karst features. Furthermore, the water budget should include provisions for demand management such as water use restrictions and xeriscaping, as well as consideration of use of non-potable water sources such as reclaimed water or rain water. Non-potable sources must not impair communal water system sources.

Finally, Loudoun Water already requires additional community wells within the karst because the risk of failure or impacts is higher. The FSM should also incorporate this requirement, along with the requirement for developers to propose water quality testing during hydrogeologic investigations that takes into account this risk. An example would be performing pumping and quality tests during both "wet" and "dry" conditions.

Many of the recommendations above can be expanded to other parts of Loudoun County as appropriate. However, for now, we provide these as our comments regarding the proposed Limestone Overlay District.

We understand that the Planning Commission would like to meet with a representative from Loudoun Water regarding the LOD and will make ourselves available for an upcoming PC work session. If you have any questions or comments in the meantime, please do not hesitate to contact me.

Sincerely,



Todd A. Danielson, P.E., BCEE
Manager of Community Systems